

REMARKS

Claims 35-48 are pending in the current application. Claims 35-48 currently stand rejected. Reconsideration and allowance of claims 35-48 are respectfully requested in light of the following remarks.

Claim Rejections – 35 U.S.C. § 103

Claims 35-48 stand rejected under 35 U.S.C. §103(a) as being unpatentable over publication “CPW for SIMULATE-3” by Kevin O’Sullivan contained in the “Update ...” newsletter (“O’Sullivan”) in view of US Pat 5,414,809 to Hogan et al. (“Hogan”) and US Pat 5,923,717 to Fawks (“Fawks”). This rejection is respectfully traversed for the reasons detailed below.

Applicants previously argued that none of O’Sullivan, Hogan, and Fawks disclose **“inputting at least one fuel attribute** into the graphical user interface” and using the input attribute to both “populate” a loading map with fuel bundles and “select, sort, filter, or move” the fuel bundles. The Examiner replies that Fawks is applied for only the recited “populating” based on an input fuel attribute and replies that O’Sullivan teaches the recited selecting, sorting, filtering, or moving based on an input fuel attribute. Applicants respectfully resubmit that neither reference discloses or suggests “inputting at least one fuel attribute” into anything for use in the recited populating, selecting, sorting, or moving. Specifically, where O’Sullivan teaches user rotation of symmetric bundles, **the symmetric attribute of the fuel bundles is not input**. See O’Sullivan, p. 1. The Examiner identifies bundle reactivity values in Sullivan as input fuel attributes, but Applicants do not see where

such values are input into the graphical user interface, and, input or not, the bundle reactivity values are not the basis of any selecting, sorting, or filtering. Rather, as just stated above, only symmetric attributes are used in the rotation, and those symmetric attributes are not input into the graphical user interface. See O'Sullivan, p. 1. With regard to Fawks, which discloses placing fuel bundles within a core simulator based on reactivity values, **the reactivity attribute of the fuel is not input.** See Fawks, Col. 3, l. 63 – Col. 4, l. 4. Thus, Applicants respectfully reiterate that O'Sullivan and Fawks lack any inputting a fuel attribute into a graphical user interface (or anything else) for use in populating and with loading tools.

Further, the Examiner continues to apply Hogan for teaching “loading tools within the graphical user interface graphically **sorting, filtering, or moving** graphical fuel bundles” recited in claims 35 and 42. The Examiner particularly points to the arrow tool of Hogan, FIG. 9. Upon review of Hogan, however, Applicants respectfully submit that the arrow tool of Hogan FIG. 9 is not a moving, sorting, or filtering tool. Rather, the arrow tool in Hogan appears to be merely a **linking tool** for linking a file location with file properties in a database. See Hogan, Col. 2, ll. 39-40; Col. 7, ll. 35-40; Col. 8, ll. 22-27 (everywhere describing the functionality of FIG. 9 as a linking database and local store entries). Database linking does not disclose or suggest sorting, filtering, or moving graphical fuel bundles in a graphical user interface. Thus, Applicants further submit that Hogan does not teach the loading tools and their recited properties for which Hogan is applied.

Lastly, the Examiner replies to Applicants' arguments of non-combinability by arguing that the O'Sullivan-Fawks-Hogan combination is merely automation of previously manual functions, and that such combination is predictable and permissible under § 103. Applicants respectfully reply that combination of the applied references is more than mere automation. The Examiner's combination is a specific selection of unrelated functions from each reference, each selected function disclosing only individual pieces of claim limitations. For example, Hogan teaches only a generic linking tool without any suggestion of inputting fuel bundle attributes or of modifying the tool to move anything based on previous input. Hogan does not discuss how this tool can move anything in a graphical user interface or how a previously-input attribute could be implemented with this tool. Similarly, Fawks is silent with regard to displaying fuel bundle locations graphically; indeed, it is not clear what a graphical representation and input-attribute-based manipulation of the core prior to Fawks' simulation would achieve, since the optimization is internal. See Fawks, Col. 2, l. 63 – Col. 3, l. 8 (describing computer implementation with no display); Col. 5, ll. 34-37 (describing final result with no display).

Yet the Examiner picks out the tool of Hogan and simulation core populating of Fawks and combines them with the graphical user interface of O'Sullivan to meet the recited populating and loading tools with graphical, input-attribute-based functionality disclosed only by the present application. It "is impermissible within the framework of § 103 to pick and choose from any one reference only so much of it as will support a given position to the

exclusion of other parts necessary to the full appreciated of what such reference fairly suggests to one skilled in the art.” In re Wesslau, 353 F.2d 238, 241 (C.C.P.A. 1965); *see also* KSR, Int’l v. Teleflex, Inc., 550 U.S. 398 (2007) (“A factfinder should be aware, of course, of the distortion caused by hindsight bias and must be cautious of arguments reliant upon *ex post* reasoning”). Thus, none of the references suggest or permit the Examiner’s cutting and pasting to meet the graphical tool elements of claims 35 and 42 under § 103.

Because O’Sullivan, alone or in combination with Hogan and Fawks, fails to teach each and every element of claims 35 and 42, and cannot be combined under § 103 without using impermissible hindsight, these references cannot anticipate or render obvious claims 35 or 42. Claims 36-41 and 43-48 are allowable at least for depending from an allowable base claim. Withdrawal of the rejection to claims 35-48 under 35 U.S.C. § 103(a) is respectfully requested.

Examiner Interview Requested

In light of the above distinctions among the claims and the references as applied, Applicants request that the Examiner contact the undersigned in order to schedule an Examiner interview. Applicants would particularly like to discuss the above distinctions and better understand where or how the Examiner is finding the missing claim elements discussed above in Hogan, Fawks, or O’Sullivan.

CONCLUSION

Accordingly, in view of the above amendments and remarks, reconsideration of the objections and rejections and allowance of each of claims 35-48 in connection with the present application is earnestly solicited.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Ryan Alley at the telephone number of the undersigned below.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 08-0750 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17; particularly, extension of time fees.

Respectfully submitted,

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By



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